



**Office for Nuclear Regulation (ONR)
Quarterly Site Report for
Devonport Royal Dockyard
(Devonport Royal Dockyard Ltd and
HM Naval Base Devonport)**

Report for period 1 October to 31 December 2018

Foreword

This report is issued as part of ONR's commitment to make information about inspection and regulatory activities relating to the above site available to the public. Reports are distributed to members for the Devonport Local Liaison Committee and are also available on the ONR website (<http://www.onr.org.uk/llic/>).

Site inspectors from ONR usually attend Devonport Local Liaison Committee meetings where these reports are presented and will respond to any questions raised there. Any person wishing to inquire about matters covered by this report should contact ONR.

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1 INSPECTIONS

1.1 Dates of inspection

The ONR site inspectors made inspections on the following dates during the quarter:

- 1 - 4 October.
- 11 - 12 October.
- 25 - 26 October.
- 31 October.
- 5 - 8 November.
- 12 - 15 November.
- 4 - 5 December.
- 10 - 13 December.

Some of the inspections were carried out with inspectors from the Ministry of Defence's internal regulatory organisation; the Defence Nuclear Safety Regulator (DNSR).

2 ROUTINE MATTERS

2.1 Inspections

Inspections are undertaken as part of the process for checking compliance with:

- the conditions attached by ONR to the nuclear site licence granted under the Nuclear Installations Act 1965 (NIA65) (as amended);
- the provisions of the Energy Act 2013;
- the Health and Safety at Work Act 1974 (HSWA74); and
- Regulations made under HSWA74, for example the Ionising Radiations Regulations 1999 (IRR99) and the Management of Health and Safety at Work Regulations 1999 (MHSWR99).

The inspections entail monitoring licensee's actions on the site in relation to incidents, operations, maintenance, projects, modifications, safety case changes and any other matters that may affect safety. The licensee is required to make and implement adequate arrangements under the conditions attached to the licence in order to ensure legal compliance. Inspectors seek to judge both the adequacy of these arrangements and their implementation.

In this period, routine inspections of Devonport covered the following:

- emergency arrangements;
- safety documentation;
- safety mechanisms, devices and circuits;
- organisational capability;
- examination, maintenance, inspection and testing;
- training;
- duly authorised and other suitably qualified and experienced persons;
- control and supervision of operations, and
- decommissioning.

In general, ONR judged the arrangements made and implemented by the site in response to safety requirements to be adequate in the areas inspected. Where improvements were considered necessary, the licensee made commitments to address the issues, and the inspectors will monitor progress during future visits. If necessary, ONR will take formal regulatory enforcement action to ensure that appropriate remedial measures are implemented to reasonably practicable timescales.

The following sections provide an update on items previously covered in ONR's site reports, and relevant new information.

SITE DEVELOPMENTS AND FUTURE NUCLEAR FACILITIES

ONR continues to engage on the project to provide a new defueling capability in the Submarine Refit Complex (SRC), known as 'Future Nuclear Facilities'. This will enable final defueling of Laid-Up Submarines (LUSM). ONR is regulating the new Reactor Access House (RAH) project through agreed regulatory hold points, and through DRDL's compliance with its arrangements for modification to the design of plant during construction (LC20) and commissioning (LC21).

ONR continues to engage with DRDL on 'Future Docking Facilities'. This work is focused on ensuring that the dockyard has sufficient capacity and facilities to deliver the longer term submarine programme safely.

ONR has engaged with the licensee in relation to proposed organisational changes that will be implemented in accordance with the licensee's Licence Condition 36 (organisational capability) arrangements.

DEVONPORT NUCLEAR SAFETY STRATEGY

ONR continues to engage with DRDL on the content and time-scales for delivery of the DRDL ten-year nuclear safety strategy. ONR has developed a regulatory strategy which enhances the regulatory presence on the site, and focuses on targeted areas to enable DRDL to move out of 'enhanced regulatory attention' at the earliest opportunity. In December, ONR formally wrote to DRDL in relation to failure to progress with its Nuclear Safety Improvement Program and defined a short term action plan to be implemented by DRDL. This action plan is required to regain confidence in the capability of the organisation to deliver the expected safety improvements. This short term plan is expected to be delivered by February 2019 and will be closely monitored by the ONR site inspection team.

SUBMARINE REFIT COMPLEX

ONR has agreed the readiness inspections to be carried out before the next docking and the licensee has introduced hold points to ensure these are completed.

9 DOCK

Routine regulatory engagements continue with the 9 Dock facility in respect to safe operations associated with maintenance of HMS Vanguard.

LC11 – EMERGENCY ARRANGEMENTS

ONR conducted an assessment of the on-site annual emergency exercise demonstration. ONR considered that DRDL's aims and objectives for the emergency exercise were appropriate and that a suitably challenging scenario had been defined. During its assessment of the emergency exercise, ONR assessors observed a controlled and measured response from both DRDL and Naval Staff. Taking into account the exercise scenario and the evidence gathered during this intervention ONR judged the exercise provided an adequate demonstration of the site's emergency arrangements.

LICENCE CONDITION 35 – DECOMMISSIONING

A specialist ONR inspector conducted a Licence Condition 35 (Decommissioning) compliance inspection. The inspection focused on the implementation of the licensee's post operational clean out (POCO) arrangements and the licensee's decommissioning strategy across the site. On the basis of the evidence sampled it was judged that DRDL has adequately demonstrated compliance with Licence Condition LC35 (Decommissioning).

LICENCE CONDITION 14 – SAFETY DOCUMENTATION

A specialist ONR inspector conducted a Licence Condition 14 (Safety Documentation) compliance inspection, focused on the implementation of the Licensee's arrangements for the licence condition, specifically their arrangements for the production of safety cases. The ONR inspector was satisfied that DRDL are adequately implementing their current arrangements for developing safety cases.

There are known issues with some aspects of the existing safety case production procedures, specifically in relation to categorisation of safety functions and classification of structures, systems and components. These gaps are already captured by a regulatory issue and progress to improve procedures is being monitored by ONR.

THEMED INSPECTION ON CONTROL OF WORK AND AN INSPECTION OF DRDL'S READINESS TO RESUME REFUEL, MOBILE AND PORTAL CRANE ACTIVITIES.

Following two separate crane events in September 2018, DRDL took the conservative decision to halt all crane related work on the licenced site. As reported in the last LLC report, ONR determined that both these events meet ONR investigation criteria and has therefore initiated a formal investigation. Subsequent to DRDL halting crane related work, DRDL placed a regulatory hold point on the restart of crane activities.

In October 2018 ONR inspectors undertook an inspection of DRDL's readiness to resume refuel related crane activities, seeking to confirm that the licensee had made the necessary improvements to demonstrate that adequate arrangements are in place for the safe control of crane operations. On the basis of the information provided and evidence obtained during this intervention, the ONR inspection team concluded that the licensee had made the necessary enhancements to demonstrate that adequate arrangements were in place for the safe control of refuel related crane operations.

Subsequent to this inspection, in October 2018 ONR undertook a further inspection to provide assurance that DRDL had enhanced its arrangements for the safe control and operation of mobile and portal crane activities prior to resumption of these activities on the licenced site. The ONR inspection team judged that the case presented by the licensee did not adequately demonstrate that the root causes to recent portal crane events had been identified and understood. Understanding the root causes of events should enable a full suite of corrective actions to be generated and provide confidence that the identified remedial actions and control measures are suitable and sufficient to prevent a recurrence and hence enable a safe return to operations. Given that the licensee could not demonstrate this, the ONR inspection team concluded that the return to safe crane operations (excluding refuel related crane activities) could not be supported without further justification. The ONR inspection team also recommended adoption of a conservative approach to restart where a controlled restart would allow the site to confirm that identified improvements are effective and provide an additional level of control and scrutiny in the interim. This was communicated to the site in a formal enforcement letter.

DRDL responded positively to the inspection findings and the ONR enforcement letter, and ONR undertook a further themed inspection in November 2018 in relation to DRDL's arrangements for control of work and an inspection of DRDL's readiness to resume mobile and portal crane activities. The themed inspection on control of work involved a compliance

inspection covering the adequacy of arrangements and their implementation in relation to LC10 (Training), LC12 (Duly authorised and other suitable qualified and experienced persons) and LC26 (control and supervision of operations) as they are applied to refuelling related activities. The compliance arrangements for LC10, 12, and 26 as they are applied to conduct and supervision of refuelling activities were found on inspection to comply with legal duties and relevant good practice was met. No shortfalls were identified and an example of good practice was identified. In relation to restart of mobile and portal crane activities, the ONR inspection team undertook a deep slice sample into the enhanced arrangements that will be implemented by DRDL in relation to the planning, organisation, control and supervision of mobile and portal crane activities. The inspection team concluded that DRDL has addressed the underlying causes of previous events and had made the necessary enhancements for the restart of these mobile and portal crane operations in a safe and controlled manner.

ONR intends to monitor the effectiveness of this structured return to operations in forthcoming routine site interventions.

LICENCE CONDITION 27 (SAFETY MECHANISMS, DEVICES AND CIRCUITS) AND LICENCE CONDITION 28 (EXAMINATION, INSPECTION, MAINTENANCE AND TESTING)

ONR inspectors carried out planned Licence Condition 27 (Safety mechanisms, devices and circuits) and 28 (Examination, inspection, maintenance and testing) compliance inspections in line with the relevant ONR Technical Inspection Guides. The scope of the intervention was a specific facility Plant Maintenance Schedule and the progress on two existing regulatory issues. The scope of the inspection included scrutiny of maintenance that had recently been carried out. The inspection found that examination, inspection, maintenance and testing (EIMT) activities appeared to be suitably controlled by a software package; maintenance instructions were available and records are completed and retained. Two maintenance activities associated with nuclear safety significant assets were inspected and it was noted that there were areas of local degradation around assets which were not recorded as defects in the corresponding records. This was judged to be a shortfall against Relevant Good Practice and a formal ONR regulatory issue has been raised to seek the required improvement in arrangements.

ENGAGEMENT WITH SAFETY REPRESENTATIVES

The site inspection team held a periodic meeting with safety representatives, to support their function of representing employees and receiving information on matters affecting their health, safety and welfare at work.

INSPECTIONS AT HM NAVAL BASE DEVONPORT

The majority of sites inspected by ONR are licensed under the Nuclear Installations Act 1965 (as amended). HM Naval Base Devonport is not a licensed site although it operates under Authorisation from the Defence Nuclear Safety Regulator (DNSR). The site is regulated by ONR through the following legislation:

- the Health and Safety at Work etc Act (HSWA) 1974; and
- Regulations made under the HSWA (for example the Ionising Radiations Regulations 1999, the Radiation (Emergency Preparedness and Public Information) Regulations 2001 (REPPPIR) and the Management of Health and Safety at Work Regulations 1999).

There were no inspections undertaken by ONR during the period.

3 NON-ROUTINE MATTERS

Licensees are required to have arrangements to respond to non-routine matters and events. ONR inspectors judge the adequacy of the licensee's response, including actions taken to implement any necessary improvements.

INCIDENTS ON THE SITE

In accordance with site arrangements and regulatory requirements under Licence Condition 7 (Incidents on the site), DRDL have reported a number of events to ONR in the quarter. ONR inspectors have carried out follow up enquires to gather information, to determine if the licensee's response to these events was adequate and to determine if the incident met ONR's investigation criteria. ONR will monitor the efficiency of the DRDL corrective actions as part of normal regulatory business. The formal investigation into two separate crane events reported to ONR in September 2018 continues.

4 REGULATORY ACTIVITY

ONR may issue formal documents to ensure compliance with regulatory requirements. Under nuclear site licence conditions, ONR issues regulatory documents, which either permit an activity or require some form of action to be taken; these are usually collectively termed 'Licence Instruments' (LIs), but can take other forms. In addition, inspectors may issue Enforcement Notices to secure improvements to safety.

- No LIs or Enforcement Notices were issued during the period.

Table 1
Licence Instruments and Enforcement Notices Issued by ONR during this period

Date	Type	Ref No	Description

Reports detailing the above regulatory decisions can be found on the ONR website at <http://www.onr.org.uk/pars/>.

5 NEWS FROM ONR

October:

- We welcomed the [publication](#) of the key review of operational safety performance at Torness nuclear power station, published by the International Atomic Energy Agency and the UK government. The report highlights eight areas of good practice at Torness and offers proposals for further improvements, which we fully support.
- Following our decision to prosecute, EDF Energy Nuclear Generation Ltd and Doosan Babcock Ltd pleaded guilty to offences at Hinkley Point B under the Health & Safety at Work etc. Act 1974, section 3(1) and the Work at Height Regulations 2005, Regulation 4(1) respectively. The incident was a

conventional health and safety matter, with no radiological risk to workers or the public. [A sentencing date](#) has been set for 1 February 2019 at Taunton Crown Court.

On 1 February 2019 EDF Energy were fined £200,000 and Doosan Babcock £150,000. The companies were also ordered to each pay half of the prosecution costs of £36,353.84

The sentencing marks the conclusion of a prosecution brought by ONR for offences under the Health & Safety at Work etc. Act 1974, section 3(1), (in relation to EDF Energy), and the Work at Height Regulations 2005, Regulation 4(1), (for Doosan Babcock).

The full [press statement](#) is available on our website.

November:

- Following a rigorous procurement process, we appointed six nuclear supply chain organisations to our new [Technical Support Framework \(TSF\)](#). The new TSF, which came in to effect on 1 November 2018, has been established to provide a renewed and modernised framework for procuring technical support. We use this technical support to obtain, for example, expert technical assessments, access to specialist software or modelling, or access to niche skill sets that we do not retain in-house.
- The revised Nuclear Safety Directive introduced a European system of Topical Peer Review in 2017 and every six years thereafter. We played a leading role in the preparations for the first European ‘Topical Peer Review’ on Ageing Management of Nuclear Power Plants and welcome the publication of the [first peer review report](#) by the European Nuclear Safety Regulator Group. We are pleased that a number of our experts made a valuable contribution to the exercise alongside 16 European countries as well as Norway, Switzerland and Ukraine. The UK report was authored jointly between ourselves, EDF Nuclear Generation Ltd and EDF-NNB GenCo.
- [The Atomic Weapons Establishment \(AWE\) was fined £1 million](#) after admitting offences under Section 2 (1) of the Health and Safety at Work etc. Act (1974). The incident, which occurred on 27 June 2017 was a conventional health and safety matter and there was no radiological risk to workers or the public. The prosecution was the result of our investigation into the incident.
- In conjunction with the Environment Agency, we announced the completion of our [initial high level scrutiny](#) of the UK HPR1000 reactor design.
- We provided NNB Genco (HPC) Ltd (NNB GenCo) with [consent](#) to commence the unit 1 Nuclear Island concrete pour at Hinkley Point C (HPC). We also hosted our third webinar to explain our permissioning role for the Nuclear Island concrete pour at HPC and to provide information on our work to ensure that the new nuclear power station is built to the standards expected in the UK. Amongst others, a number of Site Stakeholder Group members joined the webinar and we received excellent feedback. We are planning further webinars on various topics in 2019. If you would like to find out more, please contact the ONR Communications team at contact@onr.gov.uk

- After 16 years of decommissioning work, Bradwell became the first of the Magnox nuclear power stations to receive our permission to enter into a period of “care and maintenance”.
- The nuclear safeguards regulations which will enable ONR to set up the domestic safeguards regime following Euratom withdrawal, were laid in Parliament. The Government published the details, [alongside its response and the feedback to consultation on the draft regulations on its website](#).

December:

- [Court proceedings continued](#) in our [prosecution of Sellafield Ltd](#) for offences under Section 2 (1) of the Health and Safety at Work etc Act (1974).
- Reactor 3 at Hunterston B remains offline after being shut down following a routine inspection into cracks in its graphite core, in March 2018. [Cracking of the graphite bricks in Advanced Gas-cooled Reactors](#) such as Hunterston B is expected as the reactors age. However, the number of cracks found during the inspection of Reactor 3 has led to the licensee, EDF Nuclear Generation Limited, carrying out further inspections of the core. Reactor 4 at Hunterston B was taken offline in October for an inspection of its graphite core. EDF Energy has submitted a safety case for Reactor 4 and is preparing one for Reactor 3. We will assess both safety cases to determine whether the reactors are safe to return to service. Neither reactor may restart without our consent, which we will give only if it is safe to do so.
- The Government published a [Written Ministerial Statement](#) on implementing Geological Disposal, announcing the publication of its [Working With Communities](#) policy and the launch of a consent-based process to find a site to host a Geological Disposal Facility (GDF). While we have no formal role in identifying the site for a GDF, any future facility will need to meet the high standards of safety and security required of a licensed nuclear site.

All our latest news is available on our website www.onr.org.uk

6 CONTACTS

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